



HEBER CREEPER

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February 18, 1976

LOCOMOTIVE REPORT

51,054.73
Prepaid

The purpose of this report is to give an update of the condition and future usage of our active and inactive locomotive roster. The boiler inspections held February 13, 1976, have given me more insight as to the condition of the 35 and the Shay. I accompanied Mr. John Peterson, Utah State Boiler Inspector, and Mr. George Harkey, H & H Boiler Repair, through out the entire inspection of both #35 and the Shay.

Mr. Peterson and myself went into the boiler of #35 first. Before he went in he asked me if the cracks in the crown sheet had given us any trouble. I told him that I was not aware of any cracks except once inside the boiler, I soon was acquainted with them. We noticed many cracks along the "tube sheet Knuckle" as he called it. He explained to me that these cracks have been in the boiler for quite some time. He also added that when he inspected the #35 in 1971, the boiler was not good and the cracks were there long before we got the engine. I am sure that our "quick" fire-ups and other boiler abuses have not helped any of our locomotives.

At present, these cracks are not leaking but, when they do we can only weld them once, and that's it. Mr. Peterson then informed me the next move was a new tube sheet. Both Mr. Peterson and Mr. Harkey estimated that it could be as much as \$15,000 to \$20,000 to custom make a new tube sheet. I asked them how long our present one could last and they indicated from 1 day to 6 years. They both suggested that along with other problems (which will be summarized at the end of this report) it would be best to get a replacement engine that is in better shape. The 35 has about 5 broken staybolts, which can easily be repaired, and a few leaks in the tubes on that troubled end sheet. Boiler repair estimates to get the 35 running, are about \$1000.00.

We then inspected the Shay, and found a few surprises. The back sheet in the firebox also has many leaks and a few cracks but, it is better than the 35. We found four broken staybolts which also can be repaired. Mr. Peterson and Mr. Harkey fear that the center set of boiler tubes have a form of a deposit cancer. If this buildup is in the center tubes, then the entire boiler must have a tube change. In order to find the problem we will hydro-test the boiler and pull one or two middle tubes out for testing. If worse comes to worse, we are looking at \$3500 to \$4000, for the needed boiler repair.

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The 618 has not yet been inspected because of inability to remove the boiler lid. As soon as we can get an impact wrench we will inspect the boiler along with the crane at a later date. Mr. Peterson indicated that there should be no problems with the boiler on the 618.

I have explained the current boiler situation, which is not good, May I suggest the following alternatives:

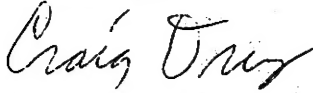
1. Make basic repairs to the Shay and #35 allowing a boiler budget of \$4,000. Hopefully, we might get by on \$3,000. If the tube sheet cracks don't fail, we will most likely get by this season.

The #35 is in need of a tire change after this season. We have trimmed the tires to the bare minimum and we can't take off any more tread to safely bring the flanges back to standards. I have no idea on cost of new tires, but I guess it to be around \$15,000 to \$20,000. No matter how we look at it, the #35 is going to need a significant capital improvement. The Shay has repairable and improvable running gear without any major repair requirements.

2. The purchase of a back-up diesel locomotive has always been a need for quite some time. A diesel unit would not be cheap but in the long run, it would more than pay for itself. The choice of a diesel should be a practical one, General Motors or General Electric would be a good buy as repair parts are easily available. I would avoid an Alco model entirely.
3. It might not hurt, on the next boiler inspection, to take a look at the 110. If the boiler is pretty good, this would be an ideal locomotive for our irregular, sharp curved heavy train trackage. To acquaint you the 110's is a compoundallet type locomotive, the steam being used twice before being discharged. This would result in improved fuel consumption. Also the locomotive is articulated, the two running frames swivel independently. This would improve our flange wear on tight curves. It also has leading and trailing trucks which would be ideal for our operation. I feel that if we cannot get a diesel or another locomotive to aid the #35's work load, the 110 should be very closely inspected and considered. Enclosed is a photo of the 111, now California Western 46, which has been beautifully restored and meets I.C.C. requirements.
4. The purchase of another 2-8-2 locomotive from Mr. Hatch or another source would answer and solve alot of our problems. If one of these locomotives is truly up for sale, I would suggest a through inspection prior to purchase.

The 618 can be used as a back-up for the 35 but not as a replacement. Also, the State of Utah will not allow any boiler welding repairs to be made unless the welder has a boiler welder permit. Mr. Peterson mentioned that no one holds a permit yet, but Mr. Harkey will have his soon.

Sincerely,

A handwritten signature in cursive script, appearing to read "Craig Drury".

Craig Drury
Operations Manager